QP Code: 403008 **Reg. No……**

Final Year B. Pharm (Ayurveda) Degree Supplementary Examinations August 2024

Pharmaceutical Analysis II

Time: 3 hrs **Total Marks: 100**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays: **(2x10=20)**

1. Explain the working principle of HPLC with the help of neat labeled diagram. List the detectors used in HPLC and describe the functions of any one.
2. Explain in detail Gel filtration.

Short notes: **(10x5=50)**

3. State and explain Beers Lambert's law, mention its deviation and reasons for deviation.
4. Explain any one ionization technique in mass spectroscopy.
5. Construction of dropping mercury electrode.
6. Explain theory of fluorescence and factors affecting fluorescence intensity.
7. Construction and working of flame photometer.
8. Explain about electronic transitions in UV spectroscopy.
9. Note on GLP.
10. Describe ilkovic equation and its application.
11. Explain the theory of chemical shift in NMR spectroscopy.
12. Note on thermogravimetry.

Answer briefly: **(10x3=30)**

13. Physical methods of detect components in paper chromatography.
14. Importance of supporting electrolytes and maxima suppressors in getting proper polarographic wave.
15. Define fluorescence and phosphorescence.
16. Note on shielding and deshielding in NMR spectroscopy.
17. Types of peaks in mass spectra.
18. Define half wave potential and diffusion current.
19. Note on method of preparing TLC plates.
20. Factors affecting migration of ions in paper electrophoresis.
21. What is retention time and retention volume.
22. Name the different types of electrons. Where are they present.

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